

Comparisons of Job Characteristics

Focus Occupation: [Surveying and Mapping Technicians \(17-3031\)](#)

Associated Occupation: [Geographers \(19-3092\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 58

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Geographers (19-3092)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Geography	3.9	24.8	14.5	<<	Extensive education and/or training may be required
English Language	11.2	17.2	11.2	<<	Extensive education and/or training may be required
Sociology and Anthropology	4.1	15.2	1.8	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	15.0	13.4	<	Expanded education and/or training may be required
History and Archeology	2.6	10.7	3.8	<<	Extensive education and/or training may be required
Philosophy and Theology	3.2	9.3	1.4	<<	Extensive education and/or training may be required
Foreign Language	2.7	7.4	1.8	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 68

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Geographers (19-3092)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Writing	9.2	15.5	9.6	<<	Extensive development of skills in this area may be required
Reading Comprehension	10.7	15.1	11.3	<<	Extensive development of skills in this area may be required

Science	4.5	13.8	4.7	<<	Extensive development of skills in this area may be required
Active Learning	8.7	12.3	9.1	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	11.6	6.5	<<	Extensive development of skills in this area may be required
Systems Evaluation	6.4	11.0	6.3	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Geographers (19-3092)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Expression	12.4	15.7	11.1	<<	Extensive improvement in abilities may be required
Written Expression	9.8	15.2	9.4	<<	Extensive improvement in abilities may be required
Oral Comprehension	12.5	14.9	11.6	<<	Extensive improvement in abilities may be required
Written Comprehension	11.0	14.4	11.5	<	Some improvement in abilities may be required
Speech Clarity	10.2	13.6	9.0	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	13.5	9.9	<<	Extensive improvement in abilities may be required
Near Vision	11.1	13.3	13.2	0	Current ability level may be sufficient
Category Flexibility	9.0	12.8	9.5	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	10.6	11.2	0	Current ability level may be sufficient
Number Facility	6.3	10.6	9.2	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 94

Focus Occupation: Surveying and Mapping Technicians (17-3031)

Associated Occupation: Geographers (19-3092)

Work Activities	Exclusivity of Activity
Analyze spatial data	87
Collect scientific or technical data	30
Communicate technical information	4

Conduct geological surveys	89
Develop or maintain databases	30
Direct and coordinate activities of workers or staff	3
Draw maps or charts	69
Draw prototypes, plans, or maps to scale	57
Interpret aerial photographs	69
Maintain records, reports, or files	5
Obtain land survey data using surveying instruments	87
Operate land or site surveying instruments	80
Read maps	42
Use computer aided drafting or design software for design, drafting, modeling, or other engineering tasks	58
Use computer graphics design software	70
Use computers to enter, access or retrieve data	3
Use drafting or mechanical drawing techniques	50
Use field notes in technical drawings	78
Use geographical information system (GIS) software	72
Use spreadsheet software	18

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 65

Focus Occupation: Surveying and Mapping Technicians (17-3031)
Associated Occupation: Geographers (19-3092)

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Cameras	2
Computer data input devices	2
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Geophysical and geotechnical instruments	23
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Land surveying instruments	19
Length and thickness and distance measuring instruments	2
Measuring and layout tools	3
Meteorological instruments	16
Network applications software	1
Power tools	2
Specialized and recreational vehicles	17

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.